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ABSTRACT

This study monitored 50 student teachers' perceptions of an interactive approach within one area, that of "reading for information," in order to identify the factors which fostered familiarity with this approach to teaching. The student teachers identified factors which helped them to learn about the teaching of "reading for information." There was strong agreement that learning about the techniques required to "read for information" provided them with needed subject knowledge. There was also strong agreement in the usefulness of an interactive approach. Not only did it help them find out about how to teach the subject in school it also provided certain affective conditions important in supporting their own learning. The credit they gave to the power of images in helping them reconstruct their understandings about how they might teach is the subject of this paper. (Contains 18 references.) (Author/RS)

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by Barbara Frame

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'Reading for Information' How student teachers react to an interactive teaching approach.

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Paper presented at the Scottish Educational Research Association Annual Conference
(September 18-20 1997: West Park Conference Centre, Dundee)

Abstract This study monitored fifty B.Ed.1 student teachers' perceptions of an interactive approach within one area, that of 'reading for information', in order to identify the factors which fostered familiarity with this approach to teaching. The student teachers identified factors which helped them to learn about the teaching of 'reading for information'. There was strong agreement that learning about the techniques required to 'read for information' provided them with needed subject knowledge. There was also strong agreement in the usefulness of an interactive approach. Not only did it help them find out about how to teach the subject in school it also provided certain affective conditions important in supporting their own learning. The credit they gave to the power of images in helping them reconstruct their understandings about how they might teach is the subject of this paper.

Introduction

In our literate society it is the case that adults encounter and have to deal with a large number of non-fiction texts. Accessing these texts requires a plethora of research skills. The attempts made by schools to help pupils to become confident in using non-fiction texts to date have not been effective. The most common criticism is that pupils simply copy verbatim (DES, 1992, p.14; AAP, 1991).

Recent research indicates that student teachers may themselves have inadequate knowledge in this area of the reading curriculum (Maclellan, 1996). Yet student teachers are required to teach similar skills to young children in order that they can access non-fiction texts (Neate, 1995; Lewis & Wray 1996).

Several studies have investigated student teachers' understanding of subject knowledge and how this becomes elaborated through the processes of teaching it and reflecting upon classroom practice (Shulman, 1986; Rovegno, 1992 Bennett & Carre, 1993; Meredith, 1995). Pedagogical content knowledge is 'subject matter knowledge for teaching'. Teachers with stronger pedagogical content knowledge are able to represent content more accurately, focus on children's thinking and respond with appropriate teaching strategies (Shulman, 1986. p. 9). This view is borne out by current research which indicates that teachers are better able to help pupils develop flexible understandings of subject matter if they understand the subject well (Bennett & Carre, 1993).

Shulman's concept of pedagogical content knowledge, however, is not without criticism. Meredith, (1995) argues that trainees may develop different forms of pedagogical content knowledge depending on the knowledge and prior beliefs which they bring to training. Rovegno, (1992) suggests that the concept needs to be extended to include 'pedagogical content knowledge in action'. This takes account of the ways in which pedagogical content knowledge becomes 'differentiated' - that is it becomes more specified in terms of how the children respond and learn. A similar point is made by McIntyre & Brown (1996) who

question the ideological commitment to the idea that pedagogical reasoning begins with the comprehension of content.

Language arts theory and instruction have undergone considerable change in recent years. Reading is currently described as a transactive process in which students interact with text and context to create meaning (Cairney, 1990). Instruction is characterised by an interactive approach which also builds on and values student ideas.

A number of researchers argue convincingly for experiential-based approaches to teacher education (Wubble, 1992; Tillema, 1994; Craig, 1994; Sutton, 1996). An interactive approach gives support to learners by: providing experiential and reflective experiences which encourage learning by doing and thinking; scaffolding through modelling/ demonstration which allows students to make use of the expertise of others until they internalise or 'automatise' the aspects of the task for themselves (Tharp & Gallimore 1991); creating self-confidence and mutual respect as all ideas are valued. All this helps to create the emotional support which is essential if participants are to meet the challenges imposed by examining and redefining one's own point of view in the light of others.

The research on the effectiveness of teacher education programmes seems to suggest that teacher educators need to:

i) help student teachers to make their prior beliefs explicit and look at what this means for teaching;
ii) provide opportunity for student teachers to examine critically their own beliefs and practices and those of their peers and tutors.

Research Design

Two first year B.Ed. student groups, about 50 students in total, took part in six weekly workshops of approximately two hours duration during term two. The workshops were designed to help the student teachers become informed about and confident in teaching 'reading for information' to primary age pupils. At the end of each session the student teachers completed proformas which encouraged them to reflect and comment on the nature of the interactive teaching used in the workshops. Data was also collected from two other sources - my own observations logged in a diary and semi-structured interviews carried out with three student teachers who had taught a sequence of lessons on 'reading for information' during the practicum in term three.

The six workshops, based on a Health theme appropriate for the Middle Stages of the primary school, gave the student teachers first-hand experience of the teaching/learning strategies involved in the different stages of the research process: activating prior knowledge, establishing reading purposes, locating information, interacting with text, monitoring understanding and communicating information (Wray & Lewis, 1997). The purposes of these workshops was to develop the student teachers' pedagogical content knowledge of 'reading for information' in a way which would allow them to discover the principles experientially from a student perspective. The key strategies employed were modelling and critical discussion of the models offered. It was hoped that these experiences would be stored as memorable images which would in turn influence their existing beliefs and future practices.

Discussion of Findings

The findings of this limited study indicate that the responses of the student teachers conveyed a positive attitude to an interactive approach to the teaching of 'reading for information' both during their work in the Institute and in the practicum.

The following discussion does not set out to make claims which may be generalised. Rather it makes tentative hypotheses which may be worthwhile pursuing in a more rigorous research study. The tentativeness of the claims takes account of the weaknesses and limitations of the study. The researcher recognises that the unequal status between her and the student teachers may have influenced the student teachers to reflect back their tutor's ideas in order to please her. Alongside this the research failed to identify any baseline information about the student teachers' existing beliefs.

The power of an interactive approach

Pedagogical Content Knowledge-Inflexible Image or Prototypical Knowledge?

The results from this small study suggest that the interactive approach itself may be one of the salient factors that helped the student teachers develop pedagogical content knowledge. When discussing the knowledge that they had gained from watching and participating in modelling they emphasised the experiential basis of this new knowledge and its strongly visual nature.

As they worked through the course it appears that the knowledge gained helped them to imagine what they would teach and how they would teach it. Research suggests that:

> '....being able to recall images, and to adapt and manipulate these images in reflecting about action in a particular context is possibly an important aspect of the task of teaching' (Calderhead & Robson, 1991 p.3).

However, Calderhead and Robson found that one of the less useful features of the student teachers' images was their inflexibility. Images were rigid, restricted and insensitive to new teaching contexts. It would seem that the images did not help the student teachers develop prototypical knowledge. Prototypical knowledge is a body of knowledge that helps teachers to:

> '..... identify significant features in their environment and to reason about possible responses to it' (Calderhead, 1991 p.532).

Results from this study suggest that within the school context student teachers' imaging was not inflexible; interviewees reported an ability to draw upon 'images' to help them interpret and solve teaching problems. Their 'pedagogical content knowing in action' (Rovegno, 1992) was evidenced as they told stories which described how they reacted on the spot to particular students, incidents and problems.

I think it helped me when...you were demonstrating because I could see, ...you know you've got to bear in mind the ability of your class and things but it helps to see somebody show you roughly how to begin and then you can work it from there
(student teacher)

Images and Beliefs

An interactive approach may be a powerful tool for developing pedagogical content knowledge in yet another way. It is known that student teachers, through an apprenticeship of observation, have developed beliefs/personal histories about teaching from a student perspective (Knowles & Holt-Reynolds, 1991). These beliefs are resistant to change and may not be well adapted to teaching (Calderhead, 1991).

It is possible that the 'images' acquired through powerful modelling situations may be especially potent in helping the development of pedagogical content knowledge because they cut across the perceived theory and practice divide, identified and disliked by student teachers, by providing knowledge about teaching and models for action (Calderhead & Robson, 1991). This may have important implications for teacher educators as there is evidence to suggest that much of the language of theory, used in teacher education, does not influence student teachers' preconceptions or beliefs about the nature of teaching and learning. It is suggested that the language of theory - left hemisphere, logical language - cannot reach beliefs based on experience and held in the form of images in the right hemisphere of the brain. Action research, reflective teaching and strategies characteristic of an interactive approach seem to be more successful in doing this (Wubbles, 1992).

Student teachers' beliefs are deeply rooted in experiences and from a constructivist perspective this prior knowledge held about teaching and learning has to be accessed if student teachers are to reconstruct knowledge.

There is some evidence in this study to suggest that the student beliefs were affected. For example, student teachers were explicit in saying that modelling enabled them to tackle the teaching in ways they would not have known about. They also expressed the view that seeing, emulating and discussing the modelling helped them put theories into practice. They also expressed surprise in seeing the techniques working with the students. This suggests to me that the approach used in the workshops altered some previously held beliefs, but of course a placatory response might equally be anticipated.

Images and Emotion

An interactive approach may exploit the power of 'images' in one other way. It has been proposed that 'images' frequently contain an affective component, being associated with particular feelings and attitudes (Calderhead & Robson, 1991). The student teachers in this study had very positive feelings about the workshops and rated the affective conditions as being very important in helping them to learn. (McIntyre & Cooper, 1996) Since our emotions play a large part in driving us to act it may be possible that the positive feelings associated with the modelling helped them to remember, recall and make use of particular 'images'. Rovegno (1992) suggests that pedagogical content knowledge development is accompanied by a strong affective component. The student teachers in this study reported that they felt 'confident', 'really good', 'pleased' and had 'fun'.

Although I am aware of the deficiencies of this study I would still like to speculate that the interactive approach may have affected the student teachers' beliefs/personal histories in two ways.

Firstly, an interactive approach may result in the construction of beliefs which are formed from a firmly student perspective of the teaching situation. Modelling which provides 'memorable' experiences may result in the student teachers trusting the models as significant prior experiences.

Secondly, through modelling, role play and structured reflection the student teachers may have been given access to teachers' metacognitive knowledge. In this way the student teachers may have been encouraged to construct beliefs about teaching from a teacher's, rather than a student's perspective with the result being that these beliefs may be better adapted to teaching.

Each of these situations would provide opportunity for the student teachers to either consolidate or modify existing beliefs. However, from a constructivist point of view certain conditions are necessary if existing beliefs are to be extended or challenged (Rogoff, 1991; Sutton, 1996).

Primarily, these are that the person becomes aware of other perspectives, that dissatisfaction is felt with current understandings and that a positive attitude is held towards new experiences. An interactive approach may be able to fulfil these conditions. In this study an interactive approach, characterised by modelling, scaffolding and emotional support was successful in helping student teachers to construct understandings that made use of their own experiences, the experiences of others, their course work and their practicum.

References

Bennett, N., Carre, C. (1993) *Learning to Teach* Routledge London

Calderhead, J., Robson, M. (1991) *Images of teaching: student teachers' early conceptions of classroom practice* in Teaching and Teacher Education Vol 7 No 1

Calderhead, J., (1991) *The Nature and Growth of Knowledge in Student Teaching* in Teaching and Teacher Education Vol 7 No 5/6.

Cairney, T. H. (1990) *Teaching Reading Comprehension*, Milton Keynes, O.U.

Cooper, P. & McIntyre (1996) *Effective Teaching and Learning*, Buckingham, O.U.

Craig, M.T., Bright, R.M., Smith, A.S. *Pre-Service Teachers' Reactions to and Interactive Constructive Approach to English Language Arts Course work* in Journal of Teacher Education,Vol. 45 No.. 2

Knowles, J.G., Holt-Reynolds, D. (1991) *Shaping Pedagogies through Personal Histories in Pre-service Teacher Education* in Teachers College Record Vol. 93 No. 1

Lewis, M., Wray, D. (1995) *Developing Children's Non-Fiction Writing*, Scholastic, Leamington Spa

Maclellan, E. (1996) *Reading Behaviour in Relation to Expository Texts* in SCRE Education a Report of the Proceedings of the Annual Conference SERA

Meredith, A. (1995) *Terry's Learning: some limitations of Shulman's pedagogical content knowledge* in Cambridge Journal of Education Vol. 25 No. 2

Neate, B. (1992) *Finding out about Finding out,* UKRA, Hodder and Stoughton, Kent

Rogoff, B. (1990) *Apprenticeship in Thinking* , Oxford University Press, New York

Rovegno,I.C. (1992) *Learning to Teach in a Field-based Methods Course: The Development of Pedagogical Content Knowledge* in Teaching and Teacher Education Vol. 8 No. 1.

Schulman, L.S. (1986) *Those Who Understand: Knowledge Growth* in Teaching in Educational Researcher Vol. 15, No. 2.

Sutton, R., Carfarelli, A., Lund, R., Schurdell, D., Bichsel,S. (1996) *A Developmental Constructivist Approach to Pre-Service Teachers' Ways of Knowing* in Teaching and Teacher Education Vol. 12 No. 4.

Tillema, H.H. (1994) *Training and Professional Expertise: Bridging the Gap Between New Information and Preexisting Beliefs of Teachers* in Teaching and Teacher Education v10 n6.

Tharp, R.,Gallimore, R. (1991) *A theory of teaching as assisted performance* in Learning to Think, Light et al, Routledge, London

Wubbles, T. (1992) *Taking Account of Student Teachers' Preconceptions* in Teaching and Teacher Education Vol. 8 No. 2.